

AMENDMENTS TO THE CLAIMS

- 1-28. (cancelled)
29. (previously presented) A method of representing data comprising:
 - representing each root of a set of roots with a value based on a definitional tree-type structure, each root including a plurality of common fields representing levels of the tree-type structure, each specific field included in a specific root having a value corresponding to the meaning of the specific root at a level of the tree-type structure represented by the specific field;
 - representing a data concept by grouping a plurality of roots selected from the set of roots to form a word, each root of the plurality of roots corresponding to a characteristic of the data concept represented by the word; and
 - storing the word.
30. (previously presented) The method of claim 29 wherein each word includes a number of bits equal to a number of bits contained in a processor register of a computer for processing the word, each field of the plurality of common fields associated with at least one bit.
31. (previously presented) The method of claim 29 wherein a value of a field at each level of the tree-type structure designates a meaning of each value of a higher level of the tree-type structure.
32. (previously presented) The method of claim 29 wherein certain roots are conventionalized based on values assigned to more basic roots, conventionalized roots being assigned field values based on a predetermined convention.
33. (previously presented) The method of claim 29 wherein a characteristic designated by certain roots is defined based on values assigned to more basic roots.

34. (previously presented) The method of claim 29 wherein the word includes a negation bit associated with a particular root, a value assigned to the negation bit designating that the meaning of the particular root is opposite to the meaning assigned to that value in the tree-type structure.

35. (previously presented) The method of claim 29 wherein the word includes a connotative root that indicates how the word is used.

36-41. (cancelled)

42. (previously presented) A method for storing data comprising:

forming a tree-type taxonomy for word roots, the upper level of the taxonomy divided into a plurality of classes, each class divided into a plurality of subclasses at a lower level of the taxonomy, each level of the taxonomy represented by a field in each word root;

combining a plurality of the word roots to form a word, each word root forming the word representing a characteristic of the word; and

storing the word.

43. (previously presented) The method of claim 42 wherein taxonomy for word roots includes conventions whereby the class and subclasses represented by fields of a word root are altered based on the fields of other word roots combined with the word root to form the word.

44. (previously presented) The method of claim 42 wherein the characteristic represented by at least one root combined to form the word is designated by reference to another root combined to form the word.

45. (previously presented) The method of claim 42 wherein the step of combining includes combining a series of negation bits with the word roots to form the word, the negation bits indicating whether each root is interpreted in the negative.

46. (previously presented) The method of claim 42 wherein the step of combining includes combining a further root with the plurality of the word roots, the further root representing how the word is used.